

May 2, 2014

Independent Electricity System Operator
Stakeholder Engagement

Re: SE-109 Outage Management Process Redesign – Comments on Redesign Proposal

OPG would like to offer the following comments and feedback on the topics identified in the April 25, 2014 stakeholder email and on the material presented at the April 23, 2014 stakeholder session.

Quarterly Advance Approval Process

- The IESO has identified that participants cannot make changes, other than cancellation, to outages submitted prior to and included in the Assessment period without IESO consent. Please confirm that participants are not precluded from submitting additional outages in the coverage period. OPG's expectation is that these outages would not be eligible for a Quarterly approval but would be considered in the Weekly and/or Daily Approval process.
- OPG requests that the IESO explain how "timestamp" priority will be managed and tracked. Will there be a timestamp for each approval process?

Weekly Advance Approval Process

- As stated above please confirm that participants are not precluded from submitting additional outages in the coverage period.
- "At Risk" outages or new submissions that cannot be approved in the Weekly process should not be rejected but should remain eligible for the 3 day and 1 day approval processes at the participants discretion. This scenario would also be applicable to outages that have Quarterly approvals "revoked".

Please see additional detail under **Final Process Design Considerations**.

1 & 3 Day Approval Process

- Until a definition of Opportunity outages is finalized it is difficult to comment on the appropriate timeframe for submission.

1. Quarterly Advance Approval Process Capacity Assessment Methodology

OPG has no concerns with removing the "At Risk" notifications from the 18 month process provided appropriate reserve margin forecasts are available to support outage planning. In the IESO's material presented on April 23 the following statement was included on slide 3:

"Security & Adequacy Report issued at the start of the report period – use to make scheduling decisions for the upcoming Weekly AA Process or the next Quarterly AA Process"

Is the IESO's intent to publish a Weekly SAA to cover the entire quarterly approval coverage period i.e. 6 months? If so issuing the report at the start of the report period i.e. one month prior to the coverage period is insufficient to support outage planning. In OPG's opinion this report would need to be published a minimum of one quarter prior to the start of the assessment period to facilitate participant outage planning.

The IESO has proposed using a methodology to determine “available resources” that is not consistent with the 18 Month methodology (“assuming 0 MW for future installations, i.e. neither a firm or planned scenario”) for use in the quarterly approval process. OPG’s opinion is that this is likely to result in a reserve margin that is more restrictive than that used in the current approval process. Planning outages based on the 18 month outlook solely may give participants a false sense of certainty with respect to their outage positioning.

The IESO’s publication “Methodology to Perform Long Term Assessments” documents how transmission adequacy and transmission outage plan assessments are performed for the 18 Month outlook. Can the IESO provide detail on the transmission assessment methodology to be used in the proposed quarterly approval process?

Facility retirements are currently captured through the 18 month data submission process. Does the IESO anticipate any additional requirements as a result of the quarterly approval process?

2. Software Capabilities

OPG understands that there will likely be a requirement to re-write our API in order to interface with the IESO’s new API but maintains the position that changes that would result in extensive changes to OPG’s ROMS application and/or database must be minimized.

This requirement is critical in meeting the IESO proposed implementation schedule. OPG will continue to carry out preliminary assessments of IESO requirements but no implementation plan or schedule will be finalized until completed API specifications and market rules are available.

Minimizing the number of new mandatory attributes will reduce the potential risk of extensive application revisions. High level comments on the specific CROW capabilities are listed below:

- **Configurable Outage Request Attributes**

- **Complex Profiles (Continuous, Daily, Weekly, Custom)**
Maintain the existing explicit flags for daily, continuous and planned weekend (available or unavailable). Any additional flags should be optional for participants.
- **Multiple Recall Times (Daytime/Night time)**
Maintain existing recall time and recall measurement properties. Use of multiple recall times i.e. daytime/night time should be optional for participants.
- **Priority Codes (Planned/Opportunity/Urgent/Forced)**
OPG feels that it should be able to reflect the new priority codes. The current API refers to “event types”.
- **Reason Codes (Maintenance/Replacement/Commissioning/Testing etc.)**
The current API handles “purpose” as a free-form text field. Changing this attribute to a “pick list” may be an issue but OPG has not had sufficient time to assess. OPG’s preference would be to retain the current format.
- **Status (In-service, Out-of-Service, Derated)**
Impact cannot be assessed until API specification is provided. Current API manages this attribute at the equipment level as a “condition status”.
- **Flags (Loss of Redundancy, Process Inclusion etc.)**
Based on currently available information OPG should be able to accommodate new binary flags provided these do not drive business rules and application modifications.
- **State Transition (Proposed/Submitted/Study/Negotiate/Approved etc.)**

OPG is not likely to utilize the “proposed” state. Can the IESO identify what visibility the IESO will have on outage in this state?

- **Comment Fields (Public/Confidential based on permission model)**
OPG would expect that existing critical comments fields would remain available. It is unclear if the proposed attribute is referring to IESO public/confidential permissions which should remain the same or is the proposal providing participants with the capability to determine visibility. For example could a generator make its comments available to the transmitter or vice versa.
- **File Attachments Supported (both Web Client/API)**
OPG supports the inclusion of this functionality.

- **Event Handling & Notification**

OPG would expect that all notifications, approvals/rejections and others, would be available via the API.

- **Validation Controls**

All error messages with respect to mandatory fields, equipment conflict and business rule violations should be available at the API. Effort should be made to ensure that error messages are in plain English.

- **Configurable rules engine**

This capability may be a benefit to the IESO but participants may not have the same flexibility within their proprietary software. Any process changes need to be assessed for participant impact prior to implementation.

- **Intuitive Versioning Features**

OPG’s outage software already tracks revisions.

3. State Control Framework

- **Planned Outages**

Overall OPG has no concerns with the proposed states.

Current API and IESO software has never permitted participants to submit actual start and end times to the IESO so this functionality is not available. OPG has not yet assessed the impact of having to provide these values.

- **Forced & Urgent**

As stated above the provision of actual start and end times may be challenging but still requires further assessment.

- **Changes to In-Progress State**

Some changes will be necessary to meet this new requirement. OPG may manage this through business process until a software solution is available.

4. Interim Process feedback

The interim process has provided generators with some flexibility through the 1 day approval process. Frequently during generator outages maintenance activities require supporting condition guarantees from Hydro One to complete the task. The interim process which allows 1 day approval for the generator outage requires 3 day approval for the supporting transmission equipment. Although every effort is made to meet the 5 day transmitter submission requirements changes in schedule, such as weather, can result in delays. If the maintenance is on the critical path the literal application the 5 day timeline can result in generators being

unable to meet the committed return to service date. The IESO needs to give consideration to outages of this nature to avoid unnecessary delay in the return to service of equipment.

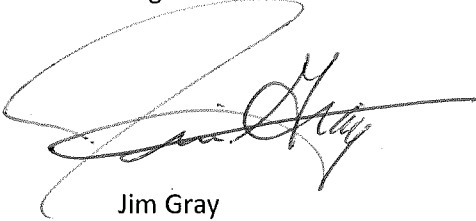
Final Process Design Considerations

- **Voluntary submission of “non-critical” outages into the Weekly Process**

As the IESO identified on April 23rd the IESO is proposing to opt in or out of the weekly approval process based solely on time of submission. It was also identified that “at risk” outages if rejected during the Weekly approval process would not be eligible for the 1 or 3 day approval process without re-submission. Although outages can be re-submitted after rejection and time stamp retained participants would bear the risk of not meeting resubmission timelines. For outages that may have been in the outage process for months or even years ahead of the outage date this risk even if small is unacceptable. The business based decision whether to participate in Weekly process should be the participants.

If there is significant savings to the IESO not to provide an “inclusion flag” then provision must be made for outages to flow seamlessly from the weekly process to the daily process similar to the transition between quarterly and weekly processes.

Regards

A handwritten signature in black ink, appearing to read 'Jim Gray', with a large, sweeping flourish above the name.

Jim Gray
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